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REMARKS

Applicants appreciate the Examiner's thorough examination of the subject application and request reconsideration of the subject application based on the foregoing amendments and the following remarks.

Claims 1-20 are pending in the subject application.

Claims 1-20 stand rejected under 35 U.S.C. §102, 35 U.S.C. §103, and/or 35 U.S.C. §112, second paragraph. Claims 13-16 and 20 were objected to because of identified informalities.

Claims 1 and 2 were amended for clarity.

Claims 13-16 and 20 were amended to only address the Examiner's non-art objections.

The drawing figures were objected to and correction required. As indicated herein, Applicants believe that the Examiner's objection to the drawing figures is contrary to the requirements of 35 U.S.C §112, sixth paragraph. As also indicated herein, notwithstanding this, Applicants have decided to submit a drawing amendment under separate cover as further discussed herein as well as any related amendments to the specification.

35 U.S.C. §112, SECOND PARAGRAPH REJECTIONS

Claims 1-20 stand rejected under 35 U.S.C. §112 on the grounds that there are antecedent basis, indefiniteness and/or vagueness concerns with the identified claims. The Office Action provides further detailed remarks regarding certain claims and indicates that the other claims fail because they apparently do not overcome the concerns listed for said certain claims. Applicants respectfully traverse.

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CLAIMS 1 & 2

As to claims 1 and 2 the Office Action asserts that these claims are indefinite because the power control means claimed in the claims cannot be responsive without the division circuit (10), and that the recitation of lines 6-8 of claim 1 do not follow the elements recited in lines 1-5. This grounds for rejection is respectfully traversed.

Referring for example to claim 1, lines 6-8 recite that the power control means controls a reproducing power of a light beam based on the measured reproduction signal characteristics of the short and long reproducing power control marks. The reproduction signal characteristics of the short and long reproducing power control marks are measured by the predetermined length mark signal measurement means. Such a recitation is wholly supported by the disclosure, and also by the claim as a whole.

It is also clear that lines 6-8 of claim 1 do *not* recite that the power control means controls the reproducing power of a light beam based on an output of a division circuit (10), nor based on, for example, an amplitude ratio calculated by the division circuit (10). Rather, lines 6-8 recite that the power control means controls the reproducing power of a light beam based, generally, on the measured reproduction signal characteristics of the short and long reproducing power control marks. In other words, and as set forth in these lines of claim 1, the power control means operates based on a signal input thereto.

Applicants would further note that in the embodiments disclosed in the subject application, the signal provided to the power control means happens to be an amplitude ratio, which amplitude ratio is obtained from the division circuit (10). However, the inventive concept of the present invention is independent of this particular feature and can be achieved using any of a number of techniques known to those skilled in the art.

As provided in MPEP-2173.05(a), "[i]f the claims, read in light of the specification, reasonably apprise those skilled in the art both of the utilization and scope of the invention, and if the language is precise as the subject matter permits, the statute (35 U.S.C. 112, second

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paragraph) demands no more..." (citations omitted). Also, MPEP-2173.04 provides that breadth of a claim is not to be equated with indefiniteness (citations omitted). It is clear from the foregoing remarks that one skilled in the art would, upon reading the claims in light of the specification, understand and be apprised of the scope of the invention and its utilization.

Thus, it is respectfully submitted that claims 1 and 2 are acceptable and satisfy the requirements of 35 U.S.C. 112, second paragraph.

CLAIMS 13-18

Claims 13-18 stand rejected because it is asserted that these claims introduce functional limitations predicated upon a ratio between the amplitude values, however, it is further asserted that there is no positive structure drawn to the divisor elements and thus it is further asserted that this stands in stark contradiction with remarks in Applicant's prior response¹. Applicants respectfully disagree.

Applicants would respectfully remind the Examiner that reference should be made to the language of the clause appearing in the base claim in determining whether or not positive structure need be recited in a dependent claim. As the feature referred to in each of claims 13-18 is a "means clause" the fact that the added language of claims 13-18 is functional is entirely appropriate under 35 U.S.C. §112. It also is not improper to provide in a dependent claim that a previous introduced means clause can perform a further function that is not a previously described function of the means clause. Thus, to the extent that the rejection appears to be grounded on the lack of a recitation of positive structure or that the described functions are in addition to those previously recited it would appear that the rejection is improper.

Notwithstanding the foregoing, and in the interests of advancing prosecution as well as to

¹ It is unclear as to what it is being referred to as the prior remarks, as the Office Action refers to page 6 of Applicant's prior response. Page 6 of prior responses includes the listing of claims and not arguments.

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addressing an objection raised in the Office Action, claims 13-16 were amended to provide that the means includes a division circuit that is arranged to measure the ratio.

It is respectfully submitted that for the foregoing reasons, claims 1-20 satisfy the requirements of 35 U.S.C. §112 and, as such, these claims are allowable.

35 U.S.C. §102 & 103 REJECTIONS

The Examiner rejected claims 1-20 under 35 U.S.C. §102(b) as being anticipated by and/or under 35 U.S.C. §103 as being obvious over the prior art for the reasons provided on pages 5-16 of the above-referenced Office. Because claims were amended in the instant amendment, the following discussion refers to the language of the amended claims. However, only those amended features specifically relied upon to distinguish the claimed invention from the cited prior art shall be considered as being made to overcome the cited reference. The following addresses the identified rejections of the Examiner.

Claim 1 stands rejected as being anticipated by Fuji '400, or obvious over Fuji '400 in view of Fuji '846; stands rejected as being anticipated by JP 2000-99945 or stands rejected as being anticipated by Tsutsui, or obvious over Tsutsui in view of WO97/29485 (Nakagawa et al.). Applicants respectfully traverse as discussed below.

As indicated herein claim 1 was amended for clarity and more particularly to provide that the predetermined length mark signal measurement means measures reproduction signal characteristics of short and long reproducing power control marks, which power control marks are recorded throughout a data recording area of a sector of the optical recording medium. As amended claim 1 also makes clear that the predetermined length mark signal measurements means is operable to detect a specific pattern, which pattern includes an arrangement of a plurality of short reproducing power control marks.

Referring first to Fuji '400 (JP 08-63817), as has been previously pointed out by Applicants, Fuji '400 requires a separate reproducing power controlling region in which the

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power control marks are recorded. As described in the Background of the Invention, such arrangement has a disadvantage wherein the available area for recording information data is reduced (see for example page 8, lines 19-25 of the subject application).

The assertion on page 6 of the above-referenced Office Action, provides that this reference is being interpreted as disclosing and/or teaching that "*the short and long reproducing power control marks as being produced from information data recorded in the data area of the record medium.*" This is not supported at all by the cited reference. As stated in col. 12, lines 25-29, of Fuji '400, for example, the control marks are recorded *in a reproducing power control area* that is beside the data recording area. Such a disclosure leaves *no* room or support for the broad assertion included in the Office Action.

Further with regards to Fuji '400, this reference also does not disclose detecting a specific pattern from amongst a bit arrangement pattern of information data. The reliance on element 4a of Fig. 16 of Fuji '400 is misplaced. Element 4a does not detect a specific pattern from amongst a bit arrangement pattern of information data nor could it. As indicated herein, because the control marks in Fuji '400 are recorded in a dedicated power control region, Fuji '400 does not have to nor need to detect a pattern from amongst a bit arrangement pattern of information data. In other words, in Fuji '400, the location of the control marks in the recording medium is exactly known (*i.e.*, they are in the dedicated power control region), hence there is no need or reasons to actively "detect" (*e.g.*, find) such control marks from amongst the information data. As such, the features of the claimed invention cannot be an explicit or inherent disclosed in Fuji '400 as the cited reference clearly teaches away from the claimed invention.

Further, it is respectfully submitted that one skilled in the art after reading Fuji '400 would not find any teaching or suggestion therein of the claimed invention as well as not finding any teaching, suggestion or motivation offered for modifying the disclosed devices/systems so as to yield the device as set forth in claim 1. Moreover, if the disclosure(s) in Fuji '400 was modified so as to be capable of working in the fashion set forth in the claims of the present

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invention, such a modification would destroy the intended purpose and function of the system/devices described in Fuji '400.

As indicated above, claim 1 also was rejected over the combination of Fuji '400 and Fuji '846. As to this rejection, it is asserted that Fuji '846 discloses the recording of long and short power control pulses in a header region of a data recording area, and as such, meets the requirement of power control marks being recorded in a data recording area. Applicants respectfully disagree with this assertion, and also respectfully submit that they are contradictory. As admitted in the Office Action, the control pulses are in a header region, not in the data recording area proper. In sum, the remarks above regarding Fuji '400 also apply to describe the deficiencies of Fuji '846.

Further, claim 1 as amended provides a further basis for overcoming this rejection since Fuji '846 does not teach or suggest power control marks being recorded throughout a data recording area of a sector of an optical recording medium.

Furthermore, Applicants respectfully traverse that there is motivation to combine the references absent Applicants' teachings. It is asserted in the Office Action that it would have been obvious to combine the above references *"to provide for appropriate long and short power control pulses in the record medium in the data recording area for their subsequent inherent use for power control"*. Such a reason is clearly a result of hindsight and not based on what is disclosed, taught or suggested to those skilled in the art by the references themselves or the combination of the references.

As indicated herein, Fuji '400 already describes a means for power control using long and short power control marks that are recorded in a dedicated power control region. As also indicated herein and as admitted in the Office Action, in Fuji '846 the control pulses are in a header region, not in a data recording area proper. Thus, the teachings of either reference alone or in combination do not disclose, teach or suggest locating the control marks amongst the information data in the data recording region. In sum, the asserted motivation is not based on

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the disclosures or teaching of the cited art, but rather is clearly based on the teachings of the Applicant's own disclosure, which thus clearly makes the combination a hindsight reconstruction.

As indicated above, claim 1 also stands rejected over JP 2000-99945. As clearly indicated in Fig. 9 of JP 2000-99945, a specific reproducing power control area (102) is provided in which is recorded the power control marks. Accordingly, JP 2000-99945 also does not disclose, teach, or suggest claim 1 (*i.e.*, pre- or post- amendment), in particular the cited reference does not disclose, teach or suggest recording power control marks throughout a data area.

As indicated above, claim 1 also stands rejected as being anticipated by Tsutsui, or obvious over Tsutsui in view of W097/29485 (Nakagawa et al.). Tsutsui does not disclose, to teach or suggest detecting a specific pattern having therein (in the pattern) a plurality of short reproducing control marks. Rather, Tsutsui deals with recording marks individually. Tsutsui also determines an amplitude level of a single shortest recording mark, and compares this amplitude level with a predetermined threshold value or higher. Such a method has disadvantages as described in the Background section of the subject application (see for example, page 10, lines 3-5, - page 11, line 14; and in particular, page 11, lines 7-8). Nakagawa does not provide any teaching, disclosure or suggestion that would overcome the deficiency noted above as to Tsutsui.

Claim 2 was amended in a similar fashion to claim 1. Pending claim 2 and claim 2 post amendment claim 2 also are generally consistent with the remarks concerning where the power control marks are, and are not, being recorded as compared to the prior art. As such the foregoing remarks distinguishing claim 1 from the references or combination of references which also form the basis of a rejection of claim 2 also apply to distinguish claim 2 from these references.

The claims 3-20 each depend directly or ultimately from one of claims 1 or 2. As such,

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each of claims 3-20 are considered to be allowable at least because of the dependency from an allowed base claim. This shall not be construed, however, as an admission that claims 3-20 are not separately patentable from the cited art.

The following additional remarks shall apply to each of the above.

As provided in MPEP-2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Or stated another way, "The identical invention must be shown in as complete detail as is contained in the ... claims. *Richardson v Suzuki Motor Co.*, 868 F.2d 1226, 9 USPQ 2d. 1913, 1920 (Fed. Cir. 1989). Although identify of terminology is not required, the elements must be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990). It is clear from the foregoing remarks that the above identified claims are not anticipated by the prior art.

As provided in MPEP 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. *In re Fine*, 837 F. 2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); *In re Jones*, 958 F. 2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As provided above, the references cited, alone or in combination, include no such teaching, suggestion or motivation.

Furthermore, and as provided in MPEP 2143.02, a prior art reference can be combined or modified to reject claims as obvious as long as there is a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Additionally, it also has been held that if the proposed modification or combination would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. Further, and as provided in MPEP-2143, the teaching or suggestion to make the claimed combination and the reasonable suggestion of

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success must both be found in the prior art, not in applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). As can be seen from the forgoing discussion regarding the disclosures of the cited references, there is no reasonable expectation of success provided in the references. Also, it is clear from the foregoing discussion that the modification suggested by the Examiner would change the principle of operation of the device disclosed in the primary reference.

As the USPTO Board of Patent Appeals and Interferences has held, "The mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims on appeal is not by itself sufficient to support a finding of obviousness. The prior art must provide a motivation or reason for the worker in the art, without benefit of appellant's specification, to make the necessary changes in the reference device," *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ351, 353 (BD. Pat. App. & Inter. 1984). It is clear from the foregoing remarks, however, that the suggested modification to the device disclosed in the cited art would require a modification to the operation of the disclosed device and/or is more than an obvious matter of design choice.

It is respectfully submitted that for the foregoing reasons, claims 1-20 are patentable over the cited reference(s) and thus satisfy the requirements of 35 U.S.C. §102 and/or §103. As such, these claims are allowable.

CLAIMS 13-16 & 20

As indicated above, claims 13-16 and 20 were objected to because of identified informalities.

Although Applicants believe that the objection is improper in view of the observations made in connection with the §112 rejection of claim 13-18, in the interest of advancing prosecution claims 13-16 are amended herein to provide that the length measurement means includes a division circuit to carry out the ratio measurement.

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As to claim 20, it appears that the objection is concerned with the repetition or duplication of material in claim 20 that appears in either the base claim or claims 13-16. As such, claim 20 was amended to eliminate language that may have been duplicative and thus confusing.

In view of the foregoing remarks, Applicants respectfully submit that claims 13-16 and 20 are considered to be acceptable and to meet applicable rules and regulations.

DRAWING OBJECTIONS

The Examiner objected to the drawing because the predetermined length mark signal measurement means is not shown in the drawing figures. Applicants respectfully traverse.

As indicated herein, the Office Action appears to be looking for structure or features in the specification for features being claimed as a means plus function. Thus, it appears that the drawing figures are being objected to, not because they do not show structure that can perform the function as set forth in the claims but rather because there is nothing entitled on the figure or labeled to correspond to the predetermined length mark signal measurement means.

All the Patent Laws require is that the subject application set forth and describe the structure that corresponds to the claimed function. There is no requirement that the drawing figures must specifically label or identify the portions of any described or illustrated structure that correspond to the means set forth in a claim.

While such is not believed to be required; Applicants will submit under separate cover an amended drawing figure(s) (*e.g.*, Fig. 1) that relates reference numerals 6-9 to the predetermined length mark signal measurement means as had been suggested by the Examiner as well as amending the subject application if needed to reflect such an amendment(s). Such an amendment would not be considered to be entry of new matter.

In view of the foregoing remarks, the drawing figure(s) is/are considered acceptable and

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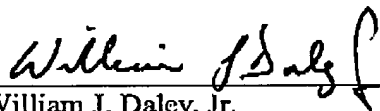
further correction is not required, however, as indicated above, an amended drawing figure will be submitted under separate cover.

It is respectfully submitted that the subject application is in a condition for allowance. Early and favorable action is requested.

Applicants believe that additional fees are not required for consideration of the within Response. However, if for any reason a fee is required, a fee paid is inadequate or credit is owed for any excess fee paid, the Commissioner is hereby authorized and requested to charge Deposit Account No. 04-1105.

Respectfully submitted,
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